

Physical Interaction with Electronic Instruments in Devised Performance

Volume 1

PhD Thesis

Electronic Music Performance

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For
Margaret and David Spowage

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Abstract

This thesis describes how I took part in a series of collaborations with dancers Danai Pappa and Katie Hall, musician George Williams and video artist Julie Kuzminska. To realise our collaborations, I built electronic sculptural instruments from junk using bricolage, the act of subversion, skip diving and appropriation. From an auto-ethnographic viewpoint, I explored how collaborations began, how relationships developed and how various levels of expertise across different disciplines were negotiated. I examined how the documentation of the performances related to, and could be realised as, video art in their own right. I investigated the themes of work, labour and effort that are used in the process of producing and documenting these works in order to better understand how to 'create'. I analysed the gender dynamics that existed between my collaborators and myself, which led to the exploration of issues around interaction and intimacy, democratic roles and live art. The resulting works challenged gender stereotypes, the notion of what a musical instrument can be and how sound is produced through action/interaction. I found that reflective time was imperative; serendipity, constant awareness of one's environment, community and intimate relationships greatly enhanced the success of the collaborations. Instruments became conduits and instigators with shifting implied genders based on their context or creative use. As well as sound being a product of movement, effort and interaction, I realised it was also an artefact of the instruments.

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List of Media

Copy all files to computer before playing.

Data DVD 1

- **01 Electronic Dumbell - sib Conduit.mov** *Sib Conduit* for Electronic Dumbell, performed at *Live Interfaces Conference at Leeds School of Music, UK*. 8th September 2012.
- **02 Plungerphone - Frozen Venus.mov** *Frozen Venus* for plungerphones, performed at Huddersfield University, UK. 30th June 2013.
- **03 Speaker Bra - Cold Papaya.mov** *Cold Papaya* for Speaker Bra and Wireless Shovel performed at De Montfort University, UK. 22nd May 2014.
- **04 The Beast – Uncertain Construction.mov** *Uncertain Construction* for The Beast performed without audience at De Montfort University, UK.

Data DVD 2

- **05 The Beast - New Track Of Unknown Terra I.mov** *New Track of Unknown Terra I* for The Beast performed at De Montfort University, UK. 1st April 2014
- **06 The Beast - New Track of Unknown Terra II.mov** *New Track of Unknown Terra II* for The Beast performed at Willington Cooling Towers, UK. 15th December 2014 and 26th January 2015.
- **07 Pensile Decumbent.mov** *Pensile Decumbent* for the Pensile Decumbent performed at Willington Cooling Towers, UK. 26th January 2015.

Data DVD 2 Additional Material Folder

- **01 Electronic Dumbell Test.mov**
- **02 Pensile Decumbent Reaktorhallen.mov**
- **03 Neal & Danai First Improvisation.mov**
- **Appendix**

Introduction

In this thesis I articulate experiences and insights I gleaned in the process of creating a portfolio of exploratory performance works. I worked from first principles, building new instruments from appropriated objects and discarded electronics rather than extending existing musical instruments with sensors or using projections. These objects included, for example, lampshades, a shovel, old speaker cones and amplifier circuits. My initial intention was to make new instruments from components found through skip-diving, bricolage and serendipity, to explore gesture in performance. The resulting junk sculptures were to be used to create improvised performances. However, as my explorations progressed, my interest in gesture faded when it became clear that the study of 'gesture' was insufficient to cover the many fundamental experiences from which I could gain insights; these were collaborations, effort, interaction with other people and physical objects, social ritual, production of video art, balance and gender roles in live performance.

I designed and built five electronic sculptural instruments: The Electronic Dumbbell, The Plungerphone, The Speaker Bra and Shovel, The Beast and The Pensile Decumbent. These are cross-referenced with technical diagrams and pictures in the appendix and the *Additional Materials* folder of the DVD. After I completed each instrument, I collaborated with other artists to create and perform the following works for them: *sib Conduit*, *Frozen Venus*, *Cold Papaya*, *Uncertain Construction*, *New Track of Unknown Terra I*, *New Track of Unknown Terra II* and *Pensile Decumbent*. The projects are not discussed in the chronological order of devising and constructing the instruments, but

are examined by research themes, as outlined in the chapter headings of *Collaborations and the Negotiating of Various Levels of Expertise; Performance Documentation and its Distinction from/Relationship to Video Artwork; Work, Labour and Effort* and *Gender Dynamics in Performance*.

I participated in all the works as both dancer and performer and I constructed all the instruments in this portfolio; therefore, since my research and practice were intertwined, I have written this thesis from an auto-ethnographic viewpoint. I worked across the disciplines of dance, electronic music and sculpture and have concentrated on giving insight into, and evaluation of, the workings of my creative processes in these areas. It was also important that relevant areas of my biography were available to give context to some of the decisions I made during my explorations since the ecology of my development shaped my current person and therefore, to an extent, my artistic output and research interests.

I was born in Scunthorpe, which had large steel and mining industries and was located near fishing ports and oil refineries in the Humber estuary. My mother collected antiques and my father was an electrician, so I grew up in a house full of electronic projects and vintage curiosities and I was often taken on trips to antiques fairs and auction houses. At school I briefly tried my hand at formal French horn and percussion lessons before settling on the piano. I stopped at the age of fourteen after becoming disillusioned with the institutional system of examinations. This led me to teach myself electric and acoustic guitar and I returned to the drum-kit in order to play in various local punk and alternative bands in my late teens and early twenties. I was immersed

in the local music scene and worked on a tribal marching band project with community musician Duncan Chapman. I was also spending time with programmers and experimented with computer graphics and sound effects for the computer games they were creating. This was an unsuccessful endeavour and the long working hours of this industry were not appealing so I took a break from playing and composing music.

I found work as a technical illustrator and animator with a military contractor, before moving to study an Art Foundation Degree at Derby University, then a BA in Multimedia Design at De Montfort University. After working as a cross stitch pattern designer, nightclub promoter and DJ for six years I returned to playing in gothic rock and post punk bands and joined *Conspiracy*, then the *Screaming Banshee Aircrew*, with whom I co-produced, co-wrote, recorded guitar, drums and keyboards on their third commercial CD album *Sugar*, released on the Resurrection Records label in 2009. I left in 2010 to play briefly for *Berlin Black and the Shades of Grey*, then *Luxury Stranger* before leaving to concentrate on my career as an artist and academic.

This biographical information helps explain the origins of the concepts that drive my work. The industrial vista that surrounded me for many years contributed to my visual aesthetic and sound world. The antiques, used items and electronics projects around me nurtured my frugal daily activities and lifestyle of skip diving, appropriation and the effort required to sustain this over long periods of time. Experiencing formal and informal methods of learning different instruments and graphic design skills gave me a broad perspective on the merits and pitfalls of institutional and non-institutional ways of developing my creative works while technical illustration helped me visualise the

mechanical aspects of my creative processes. Working as a DJ, promoter, producer and musician at nightclubs and in bands improved my skills in guiding long-term projects to fruition through their various stages. It also led to my interest in collaborations and dynamics inside bands as social groups and ultimately a need to leave the band environment and find my own voice. All these events sparked my interest in working with different people across different disciplines and understanding the levels of skill needed to bridge multiple areas of expertise.

Figure 1 overleaf shows the relationships between my collaborators, others who influenced my research and myself. The white rectangles represent the period of time taken to build an instrument and then compose each piece. The coloured overlapping shapes show the collaborators who were involved in my work at the time, as well as Ania Sadkowska, Julie Kuzminska and Kei Miyata who, though not direct collaborators, were important in influencing the development of pieces and instruments to varying degrees. The timeline is not shown in regular increments, as it is less important to depict the amount of time spent on each project than to show the collaborative relationships relative to each project. I have remained in regular contact with Danai Pappa, Ania Sadkowska and George Williams as friends after the collaborations ended although that is not represented here.

- *NTOUT1 & 2* refer to *New Track Of Unknown Terra I & II*.
- The white 'Transition Period' refers to the move to documenting my works using video art.

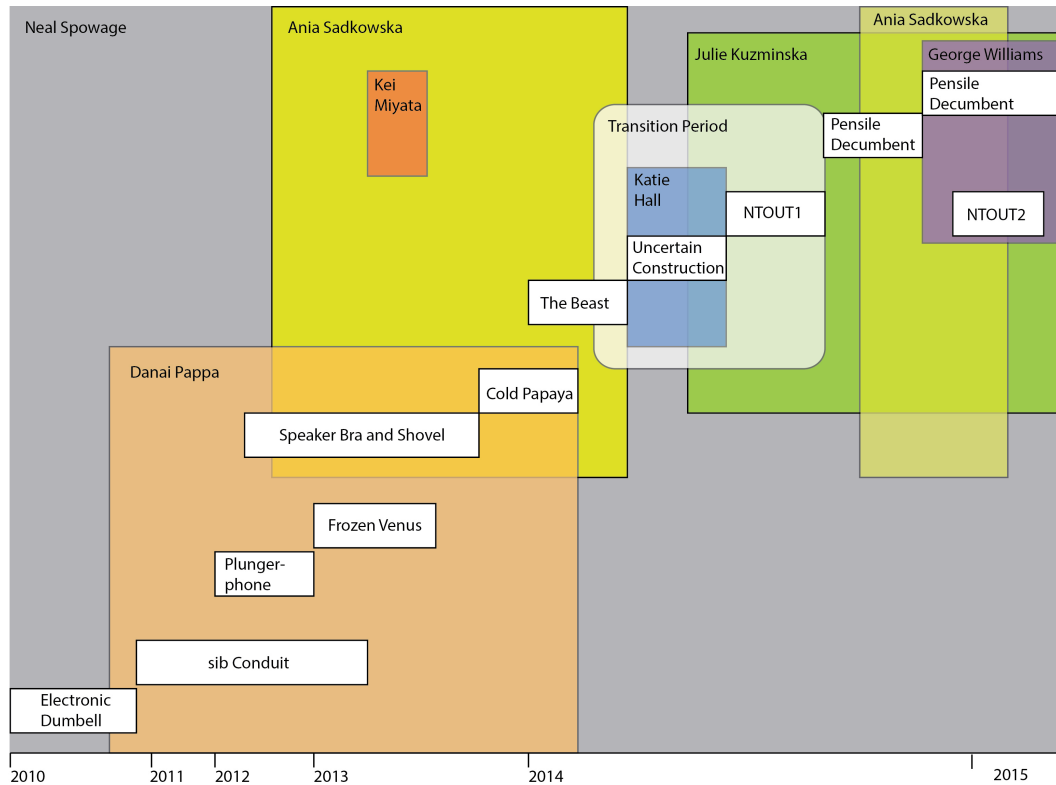


Figure 1

Timeline of Dates

- | | |
|---|--------------------------------------|
| (2010) Electronic Dumbell Version 2 and 3 | (2014) The Beast |
| (2011) sib Conduit | (2014) Uncertain Construction |
| (2012) Plungerphone | (2014) New Track of Unknown Terra I |
| (2013) Frozen Venus | (2014) The Pensile Decumbent |
| (2013) Speaker Bra and Shovel | (Instrument) |
| (2013) Cold Papaya | (2015) New Track of Unknown Terra II |
| | (2015) Pensile Decumbent (Work) |

1 Collaborations and the Negotiating of Various Levels of Expertise

Collaboration is about choosing the right people to work with, and then trusting them. You don't, however, have to agree about everything. Collaboration is sometimes about finding the right way to disagree.

In the gap between what you each agree with and what you disagree with is a place where you might discover something new. It will most likely be something you recognise when you see it, but didn't know that you knew. This is the reason to collaborate.

When you allow yourself to make a discovery, then there is something for the audience to discover. When you try to agree too much with your collaborators then there's nothing new to discover, either for you or for the audience. (Burrows, 2010, p.58)

1.1 How the Collaborations Began

Prior to the collaborations that resulted in the finished works discussed in this thesis, I had been the only person who worked with my instruments, taking full ownership of them and my performances. I saw this as artistically limiting, so in the very early stages of this research, I decided that I wanted to see them in the hands of other performers. I tested the Electronic Dumbbell Version 2 (See Appendix A) with fellow Masters and PhD students in the Music, Technology and Innovation Research Centre (MTIRC), De Montfort University (DMU). It was a double-ended baton, seventy-five centimetres long, with a speaker at each end housed in lampshades. The students improvised while I documented their actions/reactions and asked them about their musical experience and training. I also asked what they considered to be their main instrument. Their answers can be found within the video file '*01 Electronic Dumbbell Test.mov*' in the 'Additional Materials' folder on the attached DVD. Upon reflection, I realised that this kind of pseudo-usability study was not the way forward and that it was imperative to

see the instruments in the context of an artistic collaboration. For example, I wanted the performers to interact with the Electronic Dumbbell as a whole sculptural, sound making, totemic object. It was not just about the sound. This meant that I needed to work with someone with expertise in performance practice and choreography that contrasted with my untrained movement. I also wanted the excitement of learning something new from a different discipline; all these things fuelled the idea of using collaborative duets to study the interactions between performer and instrument.

To guide me, I studied Bertolt Brecht's theories on theatre as explored by John Willet (1992). I decided his didactic use of breaking the fourth wall, where performers interrupt character or directly address the audience to prevent them becoming immersed in any fantasy or making personal interpretations of events, would not suit the environment that I was envisioning in the performance space; so I considered the less didactic discipline of dance where Annelie Nederberg, a fellow postgraduate student who was collaborating with dancers for her research into the corporeality of sound, introduced me to London-based dancer and choreographer Danai Pappa.

Danai and I lived miles apart, so I built a small 'portable' version of the Electronic Dumbbell without lampshades, that I referred to as Version 3 (See Appendix B), to send to her. The idea was that, before our initial meeting, she could get to know the nuances of the instrument, which was as operationally close to the large Electronic Dumbbell as I could manage. This omission turned out to be very important, as I will discuss in Chapter 3.2.1. Our initial rehearsal was at The Brunel Electronic and Analogue Music Festival (BEAM), at Brunel University, where we improvised with the

small and large Electronic Dumbbells in a room that contained the installations of Aleks Kolkowski. Danai had had the small Dumbbell for a number of weeks and this is where she noticed differences between the two instruments. For her, the important characteristics of the large Dumbbell that were missing from the smaller instrument were weight, the lampshades and implied gender. I will speak in more detail about Danai's relationship with the instrument as an object in chapters 1.2 and 4.1, however this was a moment when the instrument that I had created became the connection between us, serving as an instigator and conduit for creative ideas that would become *sib Conduit*. After this initial meeting, Danai became my longest-term collaborator and we worked together and shared our communities for three years on two more projects: *Frozen Venus* and *Cold Papaya*.

My next work was *Uncertain Construction* for The Beast, which was a sculptural array of speaker cones and contact microphones designed to be dragged along the ground by the performer (See Appendix C). This was in collaboration with Katie Hall, a Masters student in Dance and Performing Arts at DMU, who was recommended to me by her lecturer. We met once over coffee and discussed themes, how I would like logistically and creatively to present the work and calendar dates for rehearsals. This was our only social meeting, it was relatively formal and our relationship remained on this level of communication throughout our collaboration.

After working with Katie, I began work on *New Track of Unknown Terra I*, which was a departure from my previous works. This involved moving outside the constraints of the black box performance space, which, with Katie and Danai, had been our default

environment, an issue that will be discussed further in Chapter 3.2.3. I decided to concentrate on surfaces and acoustic environments; this meant performing in public spaces, as the logistics of dressing a black box with a variety of surfaces were too difficult and would have consumed all my time. The involvement of Julie Kuzminska, a former video artist with whom I had developed a romantic and sexual relationship, began when she recorded sound for the performance. After the first shoot she suggested that we record some low-resolution footage of the performance that could be used to enhance the initial documentary-style video. I agreed and Julie mooted the idea that short clips could be used at the start and finish of the video. I disagreed and chose to use a split screen and place it in a small panel of the final video. She helped me with an informal video composition tutorial as I was starting to edit *New Track of Unknown Terra I*. We mainly talked about the aesthetic importance of pacing, editing and mixing in the work I was to produce, which were skills and knowledge I already had. Also, after I had described to her the post-industrial and acoustically compelling location that I wanted, she suggested we use the abandoned Willington Cooling Towers near Derby for *New Track of Unknown Terra II*, which she was familiar with as they are very close to where she lived. Her role in our collaboration seemed to be that of advisor.

For *Pensile Decumbent*, my collaborator was George Williams, whom I initially met as his tutor on the Music Technology and Innovation (MTI) degree at DMU. We were also both members of The Dirty Electronics Ensemble (DEE) at the university, a loose co-curricular collective of undergraduate students, postgraduates and alumni who work on experimental electronic music performance projects. Members of the DEE took part

in a six-day exchange to the Kungliga Musikhögskolan (KMH) in Stockholm, Sweden in October 2014. During this exchange I collaborated with George on a performance for an instrument I had been working on called the Pensile Decumbent (See Appendix D), a wearable kinetic instrument with a speaker mounted on the crotch and oscillators powered by a pendulum on the wearer's back. So that we could collaborate in a duet he created a device of his own that operated on similar principles to my instrument, attaching old printer motors to a transport pallet to generate sound when it was dragged (See Appendix E).

DEE had now spent couple of days improvising together in one of the rehearsal spaces at KMH. This was difficult as it was small and arranged for lecture-style teaching, so we piled the desks and chairs to one side of the room. We did not devise our piece here because we were concerned that dragging the pallet would damage the floor, a similar issue that I had had with The Beast, and the room was not big enough for the performance that we had envisaged knowing that the venue, the R1 Reaktorhallen in Stockholm, Sweden, would be enormous. It is a disused experimental nuclear reactor hall twenty-five meters below the city. However, having the instruments in the same space with us allowed us to form ideas and get to know each other's creative language as we discussed our plans for the performance. I drew up a rough score on paper and we used it as a mental guide because we knew that a full dress rehearsal was impossible. The resulting piece, which was part of a series of performances and collaborations between KMH and DEE, felt liberating in R1 Reaktorhallen because it was spacious and had a concrete and metal floor that could easily withstand impacts from the pallet. Our performance was recorded in October 2014. The video document

is '02 *Pensile Decumbent Reaktorhallen.mov*' on the attached DVD in the additional materials folder. We performed a second version of *Pensile Decumbent*, which took place in Willington Cooling Towers during the second day of shooting for *New Track of Unknown Terra II*. It was an important conclusion to my collaboration with George and the video document was edited to become the second art video in my portfolio.

1.2 Relationships with Collaborators

I will mainly examine my relationship with Danai. My collaborations with Julie Kuzminska on *New Track of Unknown Terra* and Katie Hall on *Uncertain Construction* will be discussed in lesser detail.

At our initial rehearsal at BEAM Danai and I developed an instant rapport. We were comfortable in each other's space and had mutual physical and emotional appreciation that could be focused to present moments of passion and tension in performance. These early feelings led us to ascertain that our collaborations could be fruitful. A significant event that demonstrates the strength of our connection as collaborators was recorded in the video of our initial meeting. The clip '03 *Neal & Danai First Improvisation.mov*', which is in the additional material folder of the DVD, was of the end of our first improvisation that later developed into *sib Conduit*. Maintaining eye contact enabled us to develop an awareness of each other's body language and harmonise the end of our improvisation; the laughter resulted from a release of pleasure and mutual enjoyment. This awareness was utilised in all of our works but was particularly significant at two points in *sib Conduit*: at the beginning of the piece, where we took specific positions on the stage and turned the instruments on

simultaneously using only our awareness of each other's movements in our peripheral vision rather than internal counting; and then at the end of the rotations where we were standing as far apart as possible and turned the instruments off using the same judgment of each other's gestures¹. These mutual, or attached, interactions contrasted with the end of *sib Conduit* where our actions were pointedly detached from each other as Danai turned off her Dumbell first and was the last to stop moving and creating acoustic sound from the movement of the ball bearings in the tilt switches².

Another significant event was my interaction with Danai during the spotlight section of *Frozen Venus* where we used six Plungerphones (See Appendix F), domestic plungers with built in oscillators and speakers. This was the moment where, after I moved the Plungerphones across the stage while Danai lay and moved amongst them on the floor, she gathered them between her limbs and her torso and moved into a standing position under a spotlight³. This was originally a spur of the moment decision by her during an improvisation; as she explained in our post-collaboration conversation on 28th October 2015, she was tired of manipulating them in her hands and wanted to perform with them in a different way, and she felt they were not very expressive acoustically so she wanted them to make a different sound.

¹ This occurs at 00:01:15:00.

² This occurs at 00:10:13:00.

³ This occurs at 00:06:40:00.

... because they are so small and I was a little bit tired like manipulating then like this (waves hands in the air) and have them always in my hands ... even if you had to leave them on the floor like there, they would still go like 'eeeeeee' and even if you rolled them on the floor they would still go like 'eeeeeee' so it was either the 'eeeeeee' thing or nothing, and some of them when you squeezed the, the stick then, err, they had a very subtle change. But still it was very subtle. I mean we could, erm, we could hear being next to the plungers but the audience, they couldn't.

We took this and created a series of intimate interactions that involved me extracting the Plungerphones from Danai's grip⁴. It was a show of intimacy between the two of us because I was entering, with permission, her personal space and kinesphere. Musicians and dancers performing in close proximity like this could be considered unusual and I will discuss this in more detail in Chapter 1.3. On more than one occasion, after some performances of *sib Conduit*, one or two audience members were surprised to learn there was no romantic or sexual relationship between us. We easily exploited their presumption in *Frozen Venus* and subsequently *Cold Papaya*, by using the closeness of our collaborative relationship as a performance device. One example was a moment of innuendo and humour when I removed a Plungerphone from between her legs and glanced at the audience⁵, Brecht's technique of breaking the fourth wall. This device was established by the intimacy of our shared personal thoughts, ideas and relevant experiences in our 'married' personal creative space. It was similar to that of a romantic or sexual relationship and often mistaken as such by observers. Any true attraction, if it existed at all, could never have been acted upon, as this would have

⁴ This occurs at 00:07:35:00.

⁵ This occurs at 00:08:20:00.

disassembled the tensions that fuelled our creative apparatus and ended the collaboration.

It was also intended as a tool to involve the audience emotionally in the performance by drawing them into our relationship, suggesting there was something more than collaboration occurring on the stage. It was also our acknowledgement of Brecht's didactic method where he described a performer as "Aiming not to put his audience into a trance, he must not go into a trance himself." (Brecht, 1993, p.193). However we preferred to continue the technique of educating the audience by allowing them, and ourselves, to remain in a trance-like state of emotional participation while experiencing our performance.

When working with Katie Hall and The Beast, our collaboration did not have the closeness that was characteristic of my relationship with Danai. The result was that these intimate and emotional tensions were much less pronounced, which contributed to the piece exhibiting less passion, energy, intrigue and expectation. It began with Katie and me nursing The Beasts. It lacked dynamic flow throughout as the pace only changed once where we sped up our dragging of The Beasts back and forth across the red flooring⁶. This change was not substantial enough to lift the pace of our work, so the momentum of our performance remained slow from start to finish. We wondered at the time if the final documentation of the piece had less energy that we were expecting because it was not performed before an audience. However, when I rehearsed without an audience with Danai, our energy was still apparent. Katie

⁶ This occurs at 00:03:50:00.

delivered her earlier solo works methodically and with precision (Hall, 2015), which led me to wonder if it was either my differing relationships with Katie and Danai, or the lack of diversity in the sound of *The Beast* when used in the black box space that was affecting our performances. There was something between Danai and me that was missing with Katie since we appeared to act apart as two separate entities and the performance seemed detached. One possibility is that each rehearsal with Katie was long, at six hours, and very focussed on the work at hand as we had a very short time, roughly two months, in which to compose *Uncertain Construction*. Conversely, Danai and I composed each work for two hours at a time, over a period of four to six months, which often included a social meeting for food beforehand or drinks afterwards. Without a similar socially intimate bond between Katie and me, this missing emotion manifested itself in the performance at various points where we placed ourselves at opposite corners of the performance space and, more specifically, where we stood and pointedly faced away from each other⁷. It is also possible that basing the structural template of *Uncertain Construction* on *sib Conduit* and working in a black box space had a negative effect on our creative output, as the audio output of *The Beast* is heavily dependent on its environment. This lack of environmental character may in turn have affected our perception of the creative possibilities that were open to us. This was a very different instrument in comparison to my previous sculptures as it was large, heavy and was not easy to wear or carry. Its weight and 'clumsiness' might have restricted our ability to interact freely.

⁷ This occurs at 00:04:42:00.

When I was working with George our relationship changed from tutor and student to collaborator and friend. This was facilitated by the excursion to KMH with the DEE. Fourteen of us travelled to Stockholm from Leicester, and for most of us our accommodation was split between two small apartments, one above the other. The lower one, occupied by George and the other undergraduates, had a kitchen area so in the mornings we 'upstairs postgraduates' would wake up the 'downstairs undergraduates' so we could eat together in their kitchen diner. These occasions were important as rituals that helped to erode the perceived barriers between us and create a more appropriate environment for collaboration. We talked about the ingredients in the pasta that we ate, how we could accommodate the vegans and vegetarians among the group, and discovered new music. This is related to commensality, which is described by Seremetakis (1994) and clarified by Pink (2009, p.73) as 'eating as a way of knowing and remembering'. She refers to this practice in the context of studying people's daily lives or celebratory community events (Pink 2009, p.75). I recognised that this ritual of cooking and eating together was very important in creating a bond between groups of would-be collaborators such as ourselves and was relevant to our community, which was out of its usual context, on a research exchange in an unfamiliar city. The commensality and social interaction took place in a separate location to our collaboration on *Pensile Decumbent* at KMH and made an important contribution to our bonding and development.

Two months later my collaboration with George resumed with the filming of the second version of *Pensile Decumbent*, which happened at the same time as the filming of *New Track of Unknown Terra II*. *New Track of Unknown Terra* was filmed on 15th

December 2014 and 26th January 2015; *Pensile Decumbent* was also filmed on 26th January 2015. For these projects I worked with Judy Perrin, George Williams and Julie Kuzminska. Judy was a painter and acquaintance who kindly helped me with logistical support for both projects and George helped record the *New Track Of Unknown Terra* through film and sound. The pieces had different origins but George and Judy were drawn into our group under the broader umbrella of my ongoing creative research projects. Access to the site was difficult. We drove in Judy's small and fully laden car to a lay-by on a road in Derbyshire where we unloaded my instruments and equipment, climbed over a gate and a fence and walked over a muddy, rubble-strewn field before gaining access to the cooling tower. This helped develop solidarity in the group, and compounded the existing cohesion between George and me as collaborators and friends after our trip to KMH. I have also written about the importance of these events in Chapter 3.2.3 as for a time I considered there might be a relationship between the effort put in to the production of, and the energy present in the culmination of, collaborative work. Julie mainly followed my direction during these events, working as a camera and sound operator on both cooling tower shoots. Her main contributions were sourcing the location prior to the shoot and helping me focus on video documentation as art after the event. I will talk about this latter element of our relationship in Chapter 2.

1.3 Negotiating the Varying Levels of Expertise

Here I examine my relationships with Danai and George as musician to dancer, musician to musician, and tutor to student and how we balanced our skills and became each other's mentors while we shared the performance space. I have considered that

we became each other's apprentices, but I think that would suggest a formality in the way in which we learned from each other which did not exist.

As mentioned earlier, with regard to my collaborations with Danai, it could be considered unusual for musicians and dancers to move substantially into each other's disciplines and creative mental spaces to compose duets. Common practice is for a musician to either compose fixed media for the collaboration; to use sensor data gleaned from the dancer during the performance to create live sound; or to perform on stage with a traditional instrument, retaining the essence of their main musical discipline where dancers rarely interact with the musician's instrument. There is usually a disciplinary divide of some sort. In my research, I specifically wanted to perform alongside Danai, learning how to move, interact and to study the instruments through Danai's use of them. I also wanted Danai, when using the instruments that I built, to be my equal on the stage. We would, ideally, be without hierarchy, rhetorically stripped of our learned histories as a dancer and a musician. Our devising practice and interactions with the instruments would allow Danai to learn the musical and technical aspects of my research and me to investigate movement and interaction. I intended that efforts in establishing then investigating balance, regarding each other's disciplines, would be a visible and engaging aspect of the resulting performances.

This created a specific structure that I will split into three relationship roles or archetypes: musician and dancer; expert and amateur; tutor and student. As a musician working with a dancer I found that the compositional process that Danai used

revolved around developing a relationship with sounds and the silences within the space. She explained in our post-collaboration conversation on 28th October 2015 that she used sound as an active dance partner; “When you came with those instruments, it was so intriguing because I could create the sound any time I wanted”, as opposed to dancing to an existing composition. Our lexicon was not musical and consisted of words that described, for example, the action of moving from one place to the next as ‘transition’ or ‘development’. We used other terms including ‘mimic’, ‘rotate’ and ‘mirror’ to describe our movements in relation to each other and ‘balance’ to describe the physical form that we were creating as a duet in the performance space. My training as a fine artist assisted my understanding of this language. It was more descriptive, creative and lacking in strict terminology and acronyms than technical language. By the time we had composed our third work together we were describing our roles as ‘democratic’, where we used a collective decision-making process in which Danai was the expert dancer, sounding board and amateur musician and I was the expert musician, student dancer, facilitator and creator. The antithesis to this is the didactic dancer/choreographer dynamic in which the choreographer is expert and dancer is instrument. In *Contemporary choreography: a critical reader* (Butterworth and Wildschut 2009, p.177) Jo Butterworth described the relationship between two collaborators as ‘co-owners’ (democratic roles) at one end of a sliding scale and ‘expert-instrument’ (didactic roles) at the other. Danai first used the term ‘democratic roles’ when we devised a section in *Cold Papaya* in which I stopped moving every time Danai muted the sound of her instrument⁸, the Speaker Bra (See Appendix G), which

⁸ This occurs at 00:04:53:00.

was a moulded perspex chest shield with speaker cones mounted on the breasts. In this instance I wanted Danai to exert control over the sound and over me, to redress the balance of power held by The Shovel (See Appendix H), which was a gardening shovel with built-in tilt sensor and radio transmitter that 'controlled' the sound of her Speaker Bra. To Danai, her ability to mute the Bra and stop my movement (including my footfall) felt democratic as it gave her absolute control over the presence of performer-generated sound in the space. This is a form of control we had not articulated fully in any of our previous pieces. Even though this had been my intended working method from the beginning of our collaborations, it was a moment that made it possible for her to articulate clearly our planned democratic practice.

Working with Danai, I re-discovered the meditative practice of the warm-up that I felt I had lost as a live electronic and rock musician. I found it essential to meditate and exercise, even if my movements were to be pedestrian in the performance, as a properly warmed-up body better enhanced focus and concentration and articulated the ideas that we were presenting than a cold and tense physical form. I began to wonder whether electronic musicians engage in the idea of warm up since my experience suggested this was not always the case. This preparation brought my expertise as a musician to the level of performer. An example of my revived focus on performance practice would be near the end of *Frozen Venus* where I controlled Danai's movement using Plungerphones placed over her ears⁹. I learned that keeping a space between our bodies to allow her to express my control over her was important since any physical collision would instigate movement alien to the intended

⁹ This occurs at 00:11:40:00.

kinaesthetic phrasing of that section. Warming up also allowed my movement to be light and fluid when leaping over the cables while Danai ran across the stage.

I remained an untrained dancer and while the pedestrian style we used was an attempt to maintain an equal level of ability, our differing levels of skill were still noticeable. I wanted my untrained level of movement to be our democratic starting point. There were sections in our works where Danai would perform a solo, incorporating movements as a trained dancer that I could not come close to achieving, for example, what seemed to me an impressive ability to throw herself at the floor¹⁰ or move herself across the space in small leaps like a caterpillar¹¹ during *sib Conduit* to trigger sound from the unpredictable Electronic Dumbbell. I learned that ideas I had previously realised as organised sound, such as flourishes, silences and interactions were now also being realised as organised movement that triggered and responded to sound, by both of us, at a level of expertise that suited our collaboration. Danai mostly worked at a pedestrian level, using a movement repertoire that suited the piece and my abilities. I was always learning movement and Danai was learning the instruments. The 'negotiation' was that we were working our way around varying degrees of expertise because we came from different disciplinary origins.

Danai and I did not have a student-tutor relationship such as I had with George Williams. George was a student in one of my classes one year before our trip to KMH and a bass player in a power-violence band. The decision to collaborate at KMH changed the nature of our relationship as collaborators, bringing us a step closer to

¹⁰ This occurs at 00:06:40:00.

¹¹ This occurs at 00:05:50:00.

being socially equal; however, formality was still apparent. I briefly considered splitting the Pensile Decumbent into its two parts so George could work solely with the pendulum, but I also wanted him to have a greater creative input and thus equal prominence with a democratic contribution to the performance; so after a discussion he found a pallet to which we added chains and printer motors whose output was connected to a mixer that would convert the current generated by the rotation of the motors into an audible sound. This allowed it to generate a tone when it was dragged.

I felt that our similar histories as rock musicians and our time together as tutor and student in the creative musical environment of the MTI degree helped this improvisation. We had analogous experiences of band life, touring, recording and releasing music, as a tight unit of friends. This is similar to my relationship with Danai in terms of our shared language, however this latter collaboration also differed from the former, in that there was no steep learning curve, involving trepidation or confusion, for me to experience when moving into a new discipline. Our relative levels of expertise were balanced by our joint ability to improvise and make the best use of the space at Reaktorhallen. My learning curve with Danai, on the other hand, was considerably steeper; understanding stage placement, pacing and timing came easily to me, however my ability to realise the compositional ideas in a structured manner in this new discipline was difficult. It was not that the creative concepts that we worked with were different, but for example when we structured pieces, I was familiar with forming ideas into a mental image of musical arrangements in the single dimension of time. It was hard to take these same ideas and imagine them as embodied physical

movements and interactions between two people in time and three-dimensional space.

2 Performance Documentation and its Distinction From/Relationship to Video Artwork

2.1 How the Documents Developed

I initially intended to document my works using static cameras and a single continuous recording so that the choreography of the performers would not be lost through edits. I felt this method would make it easier to study the gestures and postures that these instruments might draw from the performers. This was common in dance, where cheap video had become popular for documenting and scoring work and rehearsals (Burrows, 2000). I hoped that, with minimal post-production edits, I could also capture raw elements of the live performance, which would result in an earthy, unedited democratic style of documentation that could embody effort. Chronologically, I used a Handycam for the first two pieces, *sib Conduit* and *Frozen Venus*, since these were performances at festivals outside De Montfort University and I needed to travel light by public transport. By the time Danai and I were ready to perform our third piece, *Cold Papaya*, I had decided to use two static high definition cameras in a standard 'multi camera master shot' setup to capture different angles of our interactions of the instruments and performers, in the style of Jonathon Burrows' *The Quiet Dance* (2005). I also wanted to add verification and peer acceptance to my work through added production values and heuristic effort as shown in experiments by Kruger, Wirtz, Van Boven, and Altermatt (2004). They asked non-experts and self-identified experts to evaluate paintings after telling them incorrectly how long they had taken to paint and showed that perceived effort adds value to art.

I used the same documentary set-up and location for my fourth work, *Uncertain Construction*, after which my collaboration in the form of duets with dancers ended and I took on a video art style for the final three works of my folio. As I began to build the Speaker Bra and Shovel for *Cold Papaya*, I had been introduced to a fashion designer called Ania Sadkowska who had advised me on materials and tools. She also gave me leather off-cuts in return for me recording a soundtrack for one of her fashion videos. This collaboration introduced me to documentation in fashion design where the 'art film/video' is considered standard practice, such as the work produced by the Showstudio fashion film production company (Knight, 2016). After I started working with Ania, I saw the art film as an alternative, and possibly clearer, means of documenting the creative reach of my instruments. The video documents of *Cold Papaya* and *Uncertain Construction* became an intermediate step into a method where post-production skills were given higher precedence in order to create video art.

Uncertain Construction, in collaboration with Katie Hall, was an attempt to re-create the format of my *Cold Papaya* collaboration with Danai, and on reflection I was attempting to retain our engaging and curious nature, or 'magic'. *Uncertain Construction* was never performed live due to both Katie's other work commitments and the difficulty of transporting the heavy floor mats, which were intrinsic to the piece as they had developed through the necessity of protecting the floor from the instrument. The video had visually dynamic moments that were enhanced by this engaging set design¹² but, on reflection, I realised that I was unable to communicate to

¹² This occurs at 00:04:42:00.

Katie my artistic intentions for the work because our performance styles and creative methods were too different. We were mismatched to the point where the resulting work seemed detached from us as performers and collaborators. I felt that this was an unconscious attempt to replace Danai with Katie, after the pause in our collaboration nine months previously; I needed to make a major change in my method because they are not the same person. The change in collaborator necessitated changes in creative structuring and methods in order for future projects to become fruitful. This contributed to my move into Video Art.

Before I started work on *The Beast* and *Uncertain Construction* but having finished building the *Speaker Bra*, I met Julie Kuzminska. Her background as a video artist also added impetus to video art becoming my chosen format for documenting my final three pieces of work, *New Track of Unknown Terra Parts I and II*, and *Pensile Decumbent* on which she assisted behind the camera. For the aesthetic of *New Track of Unknown Terra I*, I took artistic cues from the video installation version of *Guitar Drag* by Christian Marclay (2000), where I utilised the idea of a single long shot, tracking backwards. I wanted to use panels I had seen in comic book art and triptychs to show how ideas form in a non-linear fashion using clear documentation and an abstract representation of *The Beast*.

This was my second work without Danai and the first where the creative video editing process took the place of the unique and personal structure that we had assembled as collaborators. The time I would have spent being creative with her was, to a certain extent, transposed to building new creative methods and systems in the edit suite. I

ensured that the level of visual abstraction in the videos of the final three works was limited so that there was enough clear documentation of the instruments for the viewer to understand their sculptural form. I made critical judgements in deciding the balance in the video between abstract ideas and accurate depictions, including the performers' interaction with the instruments. I also wanted to create images of post-industrial decay, a personal interest that arose from growing up in a heavily industrialised town where I would regularly trespass onto the abandoned Dragonby Mines near Scunthorpe as an urban explorer. It is a pastime and an aesthetic in which I continue to have an interest and that I later associated with the film *Stalker* directed by *Andrei Tarkovsky* (1979).

I did not want to lose these images, and our interactions with this environment, in the art of the video. Therefore my direction to Julie, as the camera operator, was to keep the camera set to a wide pan for the first recorded loop around the cooling tower in *New Track of Unknown Terra II*, then to zoom in using a long lens to capture detail of my movements and a strong depth of field for the second loop. I wanted to present an eternal circular walk against a vast industrial backdrop and desolate space. The serendipitous letterbox created by the gap at the base of the cooling tower provided a window onto the industrial world beyond. This letterbox inside the letterbox of the video panel is reminiscent of the first two stages of the eternal mirror effect. Although this was not intentional, the moment I saw it on the video monitor during the shoot, I recognised its relationship to the eternal circular walk and ensured it was utilised, the connection being 'eternal'. These creative processes also applied to *Pensile Decumbent* since its filming and editing overlapped with that of *New Track of Unknown Terra II*.

Pensile Decumbent is a further progression of video as art to the point where I felt justified in adding footage that I was unable to record at the cooling towers since, due to the weather, my crew had made it clear to me that there was a limit to the amount of time they could work in the uncomfortable near-freezing conditions. This extra footage, filmed in a black box performance space at DMU, focused on the detail of the instrument¹³ and was significant in that it broke my self-imposed rule of documentary: not augmenting the documentary with additional footage after the performance since, if done badly, it can hinder the communication of liveness to the viewer and be susceptible to suggestions of manipulation.

2.2 Why the Documents Developed

Danai became wary of our creative work after our performance of *Cold Papaya* at the Fascinate conference at Falmouth University in August 2013. She felt claustrophobic and in need of a break from our work together and she also dislocated her shoulder during rehearsals for a performance in October of the same year. The injury left her unable to perform for several months, which was devastating for her and reinforced her decision for a pause in our collaborations. I also felt that she was becoming weary from the pressure of being in a long-term collaboration that was also associated with my PhD. I was upset though not deterred, since I also felt that the video documents were not fully representing my experiences and I needed some compulsion to develop my work further. After Danai had recovered from her injury we documented *Cold Papaya* as our last performance together with the previously mentioned two-camera

¹³ This first occurs at 00:01:25:00.

setup, which set me on the road to investing as much rigour in the documentary process as I had in our collaborations. It was emotionally difficult to carry on without Danai.

Another event was composing sound for Ania's fashion videos. In order to compose I spent a lot of time staring at Fraser West's edits of Ania's direction of the three video projects, the *Dys-Appearing Body Project* (West 2012); *Mirroring* (Unreal 2014) and *Dis-Comforting* (Sadkowska, 2015), which gave me an insight into how objects can be documented in this way. The films did not simply document Ania's clothing designs, which were made from modified second hand clothing, but through video edits and choreography they expressed the feelings and ideas behind those designs, including representations of ageing, decaying bones and restricted movement. There were similarities to my interests in the re-use and appropriation of discarded, sometimes old, objects and the struggle and effort required to perform with my instruments. We both felt my music worked well as an accompaniment to her videos and clothing, because of its abstract and brutal electronic noise and sometimes low fidelity. These common interests led to our successful collaboration.

As source material for the composition, she gave me a series of recorded audio interviews with men on the subject of their experience of ageing and fashion. Ania wanted me to be creative with these source sounds and also keep the interviews intact so they could be interpreted in their full context. This was a difficult creative task although it had parallels with my video documentation where I intended to keep a clear visual record of my sculptural instruments and the performers' interactions with

them, while being creative with the filming and editing process. I felt that West's approach, and that of the fashion world in general, contained so much creative editing that, although Ania's concept was retained, the artefact became lost. This suited Ania's work but not mine, so I chose to edit my documents with a more relaxed pace so my instruments and interactions could be clearly observed.

With this approach, I wanted to document experiences of tactility to the viewer through sound and image using striking visual textures, depth of field, long camera tracking movements and visceral sound. In the projects that followed *Cold Papaya* and *Uncertain Construction*, the cooling tower was able to facilitate this form of communication for The Beast and performer far more effectively than the pathways and corridors around De Montfort University. The post-industrial location that was lacking an audience meant that *New Track Of Unknown Terra II* focused on the tactile. It is difficult to describe the feeling of inspiration I felt when I first set foot in the cooling tower where we filmed this work and *Pensile Decumbent*. In the post hailstorm light, the immense size of the structure and its acoustic space was awe-inspiring and the expanse of rubble that covered the floor was reminiscent of a Martian landscape. I realised it was a huge found object.

Julie Kuzminska's input in these three projects included advising me on edits in *New Track of Unknown Terra Part I*. These were the appearance of the small lower video panel, which she had filmed on another camera, that coincides with The Beast leaving the building and making contact with concrete¹⁴, and secondly the synchronisation of

¹⁴ This occurs at 00:01:43:00.

the distorted railings in the lower panel with those in the large upper panel¹⁵. She introduced me to Elizabeth Price's *The Woolworths Choir of 1979* (2012), which drew me towards the split screen aesthetic and low definition imagery in the bottom panel and *Koyannisquatsi* (1982) where I found an interest in abstract narratives. My personal relationship with Julie acted as a magnifying glass for what I perceived as her contribution to my creative process. We talked regularly about my work as she was also an artist and this close emotional interaction distorted my perception of her creative contribution. At the time this seemed concrete and pivotal, however on reflection it was mostly support and encouragement although still not to be trivialised as it, along with many other collaborations, encouraged me to travel in certain creative directions.

The events that encouraged me to bring elements of the art video into my work helped me put together a method that drew the viewer into the sensory landscape that I have inhabited with my instruments and collaborators. The visceral sound of *The Beast*, combined with textural visuals of oranges and greys, created a trance-like state of emotional participation in the viewer where they were a part of the work and influenced its progression in their minds. This was their own bespoke virtual reality and involved them in the piece through their imaginations. I created video and audio descriptions that went beyond my initial unedited documentaries. I saw them as an extension of the live performances that I had worked on previously with Danai. Sarah Pink's phrase "seeing as a form of touching" (2009), which refers to David MacDougal's *Trans Cultural Cinema* (1998, p.51-2), also describes this sensory landscape. My

¹⁵ This occurs at 00:03:41:00.

reliance on an audience with whom I communicated for live work and later video art, was one of the reasons why I felt the audience-free performance of *Uncertain Construction* was less dynamic than I had hoped.

There is a clear tipping point on my timeline of documentation during my production of *Cold Papaya* and *Uncertain Construction*, labelled as the transition period in Figure 1 on page 1, where I determined that my direction of creative travel would be towards video art. My documentary style before and after these two works was markedly different. There were many factors that pushed me in this direction over a year from many unexpected quarters, as discussed above. I also spent relaxation time early in my research, around 2008-2010, watching video documentary as art, and this would later have an unconscious influence on my future work. Notable examples of this genre that I viewed were *Collapse* (2009) directed by Chris Smith and *Into Eternity: A Film for the Future* (2010) directed by Michael Madsen. I have given these two examples because I viewed them in this specific two-year time frame without any intention of using them in my research. *Collapse* is a talking head documentary presupposing the collapse of Western civilisation. It is interspersed with found, fast-paced, intense footage that is similar to *New Track Of Unknown Terra I*. *Into Eternity* is a slow-paced documentary about a nuclear waste facility which meditates on the idea of building something toxic that will last one hundred thousand years. The cinematography and pace of editing had a strong impact on *New Track Of Unknown Terra II* and *Pensile Decumbent*.

3 Work, Labour and Effort

3.1 Effort in Construction

Wherever the history of the labor that goes into an object's making is concealed, this creates a false freedom like that of the bourgeois market. Against this would be works that showcase a history. Such works won't openly exhibit the process that went into shaping them as "art," but they will preserve the historicity of the objects that compose them. They won't exist as products, but they will incorporate products into their appearances, highlighting their status as productions. (Grunthaner, 2016)

Building bespoke sculptural instruments was an intrinsic, and very time-consuming, part of my process. My instruments were meant to be displayable artworks in their own right and to act as a record of my creativity and effort so the labour involved in their creation would be readily apparent to the observer. I was inspired by my formative years surrounded by antiques and electronics and later by the absurdities of the fantastical, complicated yet impractical kinetic sculptures of Jean Tinguely (2004) and Heath Robinson (2007). Also, Beniot Maubrey's (1995) chunky tactile wearables had strong concepts of impractical absurdity in their often-bulky form. Scavenging, skip diving and gleaning are the sources of many of my materials, forming the universe of bricolage (Strauss, 1966) in which I work. The culture of skip diving as a working method has rarely been discussed specifically in relation to fine and modern arts despite the prominence in those areas of found objects. It seemed to be a given as it was such an embedded part of the daily life of artists, although Agnes Varda (2000) devoted a film documentary, entitled *The Gleaners and I*, to the broader subject of scavenging and Jeff Ferrel (2006) documented the culture of living out of the trash from the auto-ethnographic perspective of a criminologist.

In this mode of research, I have cultivated a junk area in my workshop where items that I feel may be of use, now or in the future, are stored. Much in the way a sound artist collects a library of audio or a textile artist collects fabric, I collect curious objects that have potential as construction materials with totemic values that act as the foundation of a social system of obligation and restriction, giving instruction and etiquette to a person's life. This is more than a box of spare parts as it works like a pool of provocation; they evoke a poetic beauty as a collection of objects that were once prized by their creators and their owners but were discarded, allowing me to give them a new purpose. They are the physical manifestation of my artist's sketchbook and a collection of moments from other people's lives and ideas as 'evocative objects' (Turkle, 2007) sourced from skips, bins, hardware stores, car boot sales and charity shops. To quote Mark Twain (2012):

For substantially all ideas are second-hand, consciously and unconsciously drawn from a million outside sources, and daily use by the garnerer with a pride and satisfaction born of the superstition that he originated them; whereas there is not a rag of originality about them anywhere except the little discoloration they get from his mental and moral calibre and his temperament, and which is revealed in characteristics of phrasing.

The first instrument to be included in my portfolio was the Electronic Dumbbell, although I had built a number of sculptural sketches before I constructed an instrument that I felt was suitable for my research. There were three versions of the Electronic Dumbbell of which the second will be dealt with here. The non-electronic sculptural elements, a piano key from an electric stage piano (later replaced by a machined wooden handle because the piano key was not strong enough and snapped)

and two charity shop lampshades, were completed in the MTIRL at DMU and the electronics were completed at the Studio for Electro-Instrumental Music (STEIM) in Amsterdam. Finding the components by exploring skips and charity shops was time consuming; like a good reportage photographer I tried, to the best of my ability, to be aware of what was around me wherever I was. This is a messy, serendipitous, and valid method of research, similar to that of 'Information Encountering' discussed by Sanda Erdelez (1999). However there is always a point where I can wait no longer for a useful object to appear in my bricolage universe, so some parts had to be purchased or made. I bought the amplifier, the sensors and the components for the oscillators from various online stores. Fortunately, speaker cones, which are often the most expensive component, are also the most often discarded. For the Electronic Dumbbell they were gleaned from an old radio cassette player that I intercepted before it was disposed of by DMU. This final point demonstrated that I had cultivated a reputation for hoarding disposable items and turning them into noise sculptures, meaning that my workshop would be considered, within my circle of friends and colleagues, as an alternative destination for their discarded objects with potential for repurposing.

My second instrument was the Plungerphone. It is a reduction of the Electronic Dumbbell utilising an idea I had had of 'a speaker on a stick'. The idea of using a plunger as a chassis was drawn from a 'sounding board' conversation with my PhD supervisor John Richards where I envisioned a 'plunger-like' design. I was trying to be clever and design a bespoke chassis that could be made in the woodworking shop at DMU while there was a simpler option of the 'readymade' plunger that would serve the same purpose. This simple decision, to swallow my pride in producing my own technical

masterpiece and instead allow some of the work to have been done by someone else in a previous incarnation, allowed me the mental space to take on board other ideas and relinquish control, thus deflating my ego and devoting my creative thought processes to the subsequent performance of *Frozen Venus*. It also suited my working method; I designed the instruments to have minimal set up and, as much as possible, work out of the box. This allowed Danai and me to work creatively, rather than focussing on technical and analytical thought processes. Our work together investigated the creative potential, rather than the technical and logistical aspects of the sculptural instruments. This separation of analytical and creative thought is referred to by Maria Popova (2013) in relation to the eighth of Sister Corita Kent's ten rules of creativity.

The Speaker Bra and Shovel is the oldest project in this portfolio since it was conceived as a sketch before the Electronic Dumbbell and The Plungerphone in 2008 and placed into a sketch book, waiting to be sparked into life when I attended a seminar in December 2010 at DMU where one of the speakers was Michele Danjoux, a fashion lecturer at DMU who was presenting her research. Part of Danjoux's research was an ornamental Speaker Bra as sculptural clothing made for a performance of *UKIYO* on 26th November 2010 at the Lilian Baylis Studio in Sadler's Wells, London (Birringer and Danjoux, 2013). This led me to wonder how I could create a working version of the *Bra*. Danjoux introduced me to Ania Sadkowska who advised me on a fabrication method that could create a vacuum-formed perspex and leather shield to hold circuits and speakers. I decided to make as much of the instrument as I could myself since my background is art and I have worked with multiple media in the past. For this project I

learned leatherworking and dyeing skills from Kat Marks' three day leather workshop (2013), so that the effort of construction and my personal imprint would be apparent on the object; I was tutored in plaster moulding and vacuum forming in the workshops at DMU and I used an online tutorial (Starlino, 2010) to learn how to hack a remote control system so I could use the Shovel to control the synthesiser that was mounted on the Bra. At this point I should note that I found the Shovel, some months after I had started work on the *Speaker Bra*, in my deceased uncle's shed as I cleared his house and I mounted it with tilt sensors and a radio transmitter. The way in which I found it meant that it carried a lot of emotional weight and totemism for me; it had sentimental value and came with strong memories. As a found object I immediately wanted to turn it into an instrument since stick-like pointing objects had so far been a prominent feature in the construction of my instruments. It controlled some of the sounds generated by the Bra but made no independent sound. The Shovel was acoustically impotent, something that was an unconscious decision at the time but had great impact on *Cold Papaya* where this impotence was expressed in the piece when Danai muted the sound of the Bra¹⁶, therefore rendering the Shovel ineffective, before I was disarmed of it altogether¹⁷.

The Beast, which was originally called 'Speaker Drag', came next in the series of instrument builds. It amplified the sound of itself being dragged along the ground and had been realised in more than one form, with single speaker and multiple speaker versions. It was inspired by Gordon Monohan's *Speaker Swinging* (1982) and has

¹⁶ This occurs at 00:04:53:00.

¹⁷ This occurs at 00:05:30:00.

similarities to Christian Marclay's *Guitar Drag* (2000), which strongly influenced *New Track Of Unknown Terra I*. It was made from ten speakers from discarded radio cassette players and a rusty chain, all found in my deceased uncle's house and shed and all of which carried the same emotional weight as I have previously mentioned. I returned to the plastics workshop at DMU, where the Speaker Bra had been previously vacuum-formed, to produce the concave dish, on which I mounted the ten speakers. The idea was that it would be one speaker made from a cluster of many speakers since at the time I was finding it difficult to scavenge a single large speaker cone.

The first perspex dish snapped in some crucial areas after the shoot for *New Track Of Unknown Terra I* so I prepared a second dish with thicker perspex and washers on the speaker mounts to take the strain of being dragged over rough concrete for *New Track of Unknown Terra II* in the cooling tower. My sculptural instruments had a limited lifespan and often needed ongoing maintenance and this one, more than the others, focused on its transient nature.

The final instrument build was the Pensile Decumbent which was constructed with a carpet beater dating from circa 1935, the laser head carriage from a compact disc player, an old satellite speaker from a surround sound system, sheets of transparent rubber freezer door curtain material, a drive motor and gears from a scanner and a short length of bamboo for a pendulum weighted with a piece of Victorian copper gas pipe. All these components, with the exception of the curtain material, were lying around my workshop as part of my pool of provocation, which had grown considerably during my research.

This was an adaption of an instrument created by John Richards when I was working on a project with Kei Miyata and John Richards called *Rock, Paper, Scissors* (2013) at the Curve Theatre in Leicester, UK. We had appropriated small printer motors to generate voltage to run simple oscillator and noise circuits by strapping them to our bodies and moving the motors with our arms and legs, in a scissors like fashion, using lengths of bamboo as levers. I later found this was reminiscent of some of Oscar Schlemmer's costume designs for his *Triadic Ballet* (Schlemmer O, Moholy-Nagy et al, 1961, original 1922). It was just over a year before I revisited this instrument to give it more substantial form, a short gestation relative to my other projects.

As this was the final instrument, most of my methods were now in place and had been practised regularly so it was difficult to gain much further insight. Before I started to build it, I had put out a call for old scanners and printers for parts on social media and the response was so good that I ended up with surplus components. The internal motors and gears lacked a design and cultural history that would evoke an emotional response from an observer. Instead I found my interest being drawn towards the bamboo pendulum and, specifically, its Victorian copper pipe weight. It had been in my collection of materials for around five years and was given to me by a friend who found it in his attic when he moved to a new house. Using it as a pendulum weight felt like an afterthought at the time and it was not intended as a focal point like the carpet beater, however it augmented the instrument's aesthetic using humble detail, which gave it a sense of status as a completed object.

As there are multiple versions of some of the instruments, and continuous rebuilds of others, the idea is stronger and more important than the physical presence of the artefact. Anyone could build their own sculptural instrument based on my concept, rather than my technical instructions, and this conceptual work would have greater relevance to the builder than an accurate technical non-cochlear reproduction of the instruments I have made. Indeed, the inclusion of found objects means that no instrument could be truly replicated, but the concept would be carried forward and the new instrument would be unique with the personality of the bricolage universe of whoever built it. It was important that the character of the maker was projected through the object so my collaborators could be guided and influenced indirectly by my ideas. To achieve this, a 'hands on' approach was necessary in their construction. There are many potential outcomes for my instruments, they could be discarded, forgotten in cupboards or salvaged for parts, much like their original bricolage components, completing their cycle of life and the evolutionary nature of their usefulness. They could also be turned into exhibition artefacts behind glass, although this latter outcome would be in antithesis to the ethos of transience that they have acquired in the course of this research.

3.2 Effort in Composing and Documenting

3.2.1 sib Conduit, Frozen Venus and Cold Papaya with Danai Pappa

In order to compose these works I travelled regularly with the instruments between Leicester and London. The majority of our rehearsals took place in Chisenhale Dance Studios near the London area of Bow, because it was close to where Danai lived. Her work commitments meant it was more convenient for me to do the majority of the

travelling. One rehearsal would take between seven and ten hours out of my day depending on whether I used the bus or train. There were long gaps between rehearsals, often two to four weeks, which gave us time to absorb the work we had done and view video footage of some of the rehearsals that we shared online. We were often working towards a live performance of the work and if we deemed the piece finished we would have two top-up rehearsals before a performance. I had considered the idea that the physical effort I put into travelling to rehearsals transferred into the live performance but I think this is inaccurate. It was the emotional effort, which played a large part in creating energy within the live performance, and which came from our love for our disciplines, interest in each other's work and close friendship. It followed that we had an emotional attachment to the work we produced together, which in scientific research would be considered a problem. In *The Demon-Haunted World: Science as a Candle in the Dark* Carl Sagan advises, "Try not to get overly attached to a hypothesis just because it's yours." (Sagan, 1995, p.197). However in the context of live performance this ownership can be a valuable device for creating energy because the emotional effort put into any piece is unique and creates a form of ownership by whichever performer is taking part. In collaborations the ownership is shared and subsequently creates a dynamic as the collaborators contest and manage levels of ownership of the work. They may achieve this through creating a balance between recognition of each other's work and retaining a level of ownership that is acceptable to their own sense of self worth. This dynamic can have many outcomes, as it is difficult to measure creative contributions accurately. For example one collaborator may relinquish, resulting in a loss of

emotional energy, or the relationship may fracture and this traumatic dynamic results in an engaging performance. This is often a topic of conversation within dance, as explained in an online lecture by Sarah Whatley (2009) where she discusses how dancer/choreographers have strong emotional ownership of their work because it is an art form that is impossible to wholly document or score. For the original dancer/choreographer, relinquishing one's works to a new performer can be traumatic.

With regards to composing specific pieces, *Frozen Venus* was much harder than *sib Conduit*, partly because Danai and I found it difficult to gain inspiration from one, let alone six Plungerphones. She described it in our post-collaboration conversation on 28th October 2015: "... because it's so small and the sound wasn't quite big, that's why I was uninspired because it's like, you know, playing with a pencil." Therefore we mustered considerable mental effort to break through our creative block. In terms of effort in performance, this was by far the most physically exhausting piece. Our labour was real, demonstrated by running across the space in *Chase* and *Filling the Void*¹⁸, Danai holding the Plungerphones with difficulty between her limbs and torso in the *Frozen Venus* section,¹⁹ and our roles as 'animal' and 'attendant' in the final *Bull* section²⁰. Because the Plungerphones were small and unobtrusive it seemed we compensated with rapid or challenging movement around the space rather than using simulated actions such as my shovelling and weapon-like wielding motions in *Cold*

¹⁸ This occurs at 00:04:55:00.

¹⁹ This occurs at 00:06:45:00.

²⁰ This occurs at 00:12:40:00.

*Papaya*²¹. In *sib Conduit* there was reasonable exertion in the role played by Danai due to her solo section²² because, for her, the Electronic Dumbell was reasonably heavy, although not enough to make her actions visibly laboured.

During my time in the Dirty Electronics Ensemble (DEE) I had seen and taken part in a number of performances created to great effect using clusters of simple tone-generating instruments and using one as a solo device would have been a great challenge. These instruments, including the Zircular, Sudophone and Sudofuzz, (Richards, 2016) have been used in various pieces performed around Europe in the last decade. Similarly, our creativity became gradually more fluid with six Plungerphones, working with them as a unit, as together they seemed stronger in auditory and visual aspects. It was also very easy to make more as the chassis already existed in hardware stores as a plunger. In this situation I do not think using a 'readymade' instead of building the chassis from scratch made any tangible difference to my creative processes, either because the plunger is simple, not an interesting object to us, or it was the only object that I used. This is in comparison with *sib Conduit*, where I felt that the repurposing and subverting of the two different lampshades as faux speaker horns on the second version of the Electronic Dumbell was incredibly successful in giving the instrument a personality. This was brought about by them being similar but mismatched, contributing to the slightly off-balance appearance of the instrument. They no longer functioned as domestic light diffusers because speakers had replaced the light bulbs so, instead, their form accentuated movement. This, and the absurdity

²¹ This occurs at 00:03:15:00.

²² This occurs at 00:03:08:00.

of their new purpose in relation to their previous practical and decorative function, aided composition, especially when juxtaposed with the smaller and less engaging third version of the Electronic Dumbbell. The sculptural form with the faux horns was comfortable to hold and made for interesting interactions and explorations between the performers and the instrument. The sound it produced, made by using multiple combinations of short circuits that were activated by tilt switches with every movement, was intentionally difficult to control. The design, which used analogue circuits, gave the instrument a detailed and varied timbre resulting in a unique organic and feral sound world that complemented the physical design.

3.2.2 Uncertain Construction with Katie Hall

The fourth instrument in my portfolio, The Beast, had been built shortly before I met Katie. It had been a physical sketch, awaiting full realisation since late 2011 and an idea floating around in my mind for at least a year before that.

With this piece, I had hoped that having a local collaborator might have helped make the composition process easier, however Katie's other commitments, mainly her deadline for completing her Masters Degree, meant we were working to a cut off date and that synchronizing our diaries was no easier than it had been with Danai. Distance did not matter greatly, but time and emotional energy were of great importance. If a potential collaborator had the time and energy for a project, distance would be of little concern.

With the exception of coming together for coffee at our initial meeting, Katie and I had no social contact, no mutual friends and few mutual contemporaries, thus no rituals of

a social companionship developed. Furthermore, performing a work live more than once, as I had with Danai, provided a useful refining tool and we had invested effort into involving the audience emotionally through our interactions. This was lacking with *Uncertain Construction* because it was never performed live, so we had no audience with whom to communicate and have a ‘trance-like’ emotional discourse and part of the creative impetus of my work (the audience) had been lost, making it very different from collaborating with Danai. At the time, I had a feeling that a great effort would be needed to identify the things that had been lost and work out how to regain them by readjusting my working practice. We had a hunch that the lack of an audience was a factor but did not know why at the time. Proper reflection that could eventually reveal both the need for an environment for the instrument and our personal need for some form of commensality would take time that was not available, so the decision to leave the black box would be based on this preliminary notion.

3.2.3 New Track of Unknown Terra I & II and Pensile Decumbent

New Track of Unknown Terra I was meant to stand alone; I had not envisaged a second part. I had used up quite a lot of emotional energy departing from the black box format that I had used for many years with Danai and then with Katie. I felt that this tentative step into public art was a risk to the direction of my research and it took a while for me to accept this as positive and relevant. Part of this was concern as to how I could develop my system of documentation to match this new performance method. *Uncertain Construction* and *New Track of Unknown Terra I* were part of a transition period where I began to realise that maintaining a single specific performance format was not essential in order to explore my interests in physical objects, balance,

collaborations, rituals, effort, interaction and gender roles in performance. This transition also allowed my other research interests, the nature of creativity and video documentation as art, to begin to emerge. It took emotional effort to maintain the balance between keeping an attachment to my work that could be used as energy in live performance, and being detached enough to allow for outside criticism, identify new directions of travel in my research and permit myself to follow them.

Bringing together a team of volunteers and the logistics of getting everything to the site for these final two pieces took considerable effort. The first stage of composition was gathering video and audio material of the performance, which was a straightforward set of activities in an inspiring environment.

The pieces were filmed over two windy days in an exposed location in the British winter with temperatures around five degrees centigrade. The route to the location was precarious, as we needed to climb over a gate, walk through a muddy field then climb through a hole in a chicken wire fence and over concrete blocks in order to access the site. Once on the site there were dangers of broken glass, twisted concrete reinforcing wire, rubble and openings to underground tanks of water. We negotiated all these obstacles with several heavy bags of equipment. On the first day we endured the worry of arrest because of the presence of a police helicopter that took an interest in our activities. We found that pointedly setting up cameras, tripods and boom microphones resulted in the helicopter leaving us alone. We also experienced a hail shower, which demonstrated that cooling towers provide no shelter, although the

post-shower atmospheric colouration of the sunset gave an otherworldly feel to the cooling towers.

The terrain was harsher to negotiate for performance than the DMU corridors and car park. There was much in The Beast's construction that could easily be damaged by the rubble inside the tower even though, to address the new dangers, I had changed the underside protection from metal feet to a perspex sled. The inflexible nature of the environment meant that as a performer I had to change my working practice and engage with the surroundings in order to make the piece. In this sense, the environment created by the cooling tower became a form of collaborator.

Performing and producing concurrently, while trying to use the tower as an instrument, concentrating and preparing for the performance and being aware of the environment, including the terrain, was exhausting. It was important to be prepared to improvise if The Beast became caught in rubble; being able to work with the environment, present myself as a part of it and channel my exhaustion from these peripheral sources.

Actual physical exertion in the performances of *New Track Of Unknown Terra I & II* and *Uncertain Construction* was modest and leaned towards being metaphorical with Sisyphus-like eternal toil. George's effort in performing with the pallet in *Pensile Decumbent* was more reminiscent of my dragging actions with The Beast. This juxtaposed the metaphorical effort and restrictions of movement I presented in my warrior-like stance that is present from the beginning of the performance.

The second stage of composition, editing the footage, was similar to that of composing organised sound in a recording studio for Ania. I edited *New Track of Unknown Terra II* first and then *Pensile Decumbent*, spending hours moving edits and cuts, making judgements on pacing and juxtaposing images in the split screen sections, positioning video windows and developing title graphics.

4 Gender Dynamics in Performance

In this section I will deal with my dynamic relationships with Danai Pappa, George Williams, Katie Hall and my sculptural instruments using the context of gender and performance, where gender is the cultural construct that we as individuals impose upon material objects and people.

4.1 Danai Pappa

Danai referred to the large Electronic Dumbbell as “he” and as something that could be comparable to a dance partner, saying that its physical weight, balance and nature of being difficult to control in terms of sound gave her great enjoyment and inspiration. Danai’s first language is Greek, which has no rules that set the gender of an object, so her description of the instrument’s behaviour and gender was influenced by her knowledge that I, a male of masculine gender, was the maker, not by any grammatical idiosyncrasies in translation. I would be interested to know whether she would have done the same had she not known my gender, as Carstensen (2013) notes that technicians “...often inscribe their unconscious ideas of gender roles into the artifacts” and Berg and Lie (1995) tentatively came to the conclusion that artefacts have gender “...in the sense that they are designed and used in gendered contexts”.

We unconsciously used Danai’s initial gender assignment of the Electronic Dumbbells as a basis for our interactions in *sib Conduit*. Since we were working as a duo with two different versions of the same instrument and we had both, recently and coincidentally, discovered Jonathon Burrows’ duet *The Quiet Dance*, the theme of balance, as well as gender, became important. This was evident in a sequence where I

walked around Danai with the small Electronic Dumbbell, while she lay on the floor holding the larger one. Balance was achieved because Danai was lying on her back in a vulnerable position underneath the larger, stronger 'masculine' instrument, at the same time I was standing upright and commanding, playing the smaller, less imposing, instrument and orbiting her and the large *Dumbell*, placing myself secondary in our hierarchy. This balance was performative discourse that was not fixed or permanent and was sustained by power generated from our gender dynamic as we shifted our roles ever so slightly between dominant and subordinate. It was also relevant that at the end of this sequence she lowered the larger, male instrument onto her body. Our conscious reasoning for this action was that the *Dumbell* and Danai should appear to become one and share power because they were sexual opposites that attracted each other and until this point Danai had resisted the attraction of the *Dumbell* by holding it at arm's length. This joining would act as a transition to the next section of the piece by sharing power with the *Dumbell* then releasing it. The satellite section is similar to the game of 'First Degree Rapo' described by Eric Berne in *The Games People Play* (1964, pp.110), which is a mild flirtation game between genders where the male interacts flirtatiously with the woman. Looking back, the strength of gender dynamics in *sib Conduit* was inevitable given the power generated by our interactions with each other, the instruments, and the framework of the duet based on Burrows' *The Quiet Dance* (Burrows and Farrigon, 2005).

These dynamics were also manifest in *Cold Papaya*, where we used the Speaker Bra and Shovel as two very blatantly gender-specific objects to help us use gender dynamics and democratic roles to create our work. There is a section where Danai

prevented me from moving by stopping the sound from the feminine Speaker Bra and then teased me by walking away in a manner akin to a mating ritual. This is similar to the game of 'Second Degree Rapo' also described in *The Games People Play*. Our respective genders were much more evident here than in *sib Conduit*. This relates to the differences between the Speaker Bra and Shovel being greater and their identities being stronger than between the two Electronic Dumbbells, so that in *Cold Papaya* the rudimentary shifting dynamic was more defined than in *sib Conduit*. After this section, Danai took the Shovel from me and discarded this masculine readymade object²³ so that we could become intimate at the end of the piece²⁴. After being disarmed, the only way I could affect the sound being generated by the Speaker Bra was to touch it and therefore Danai and this could only be with her overt permission. Our dynamic at this point shifted to a point where the Speaker Bra and thus feminine gender needed to become the main focus for both of us in order for the piece to be able to continue. We worked together to make the Speaker Bra and our bodies the central focus of the performance. My actions became less aggressive and masculine in our discourse after discarding the Shovel, for example touching Danai's arms and face, as opposed to my previous controlling action of grabbing the speaker cones, or breasts, from behind her. As a non-dancer my movements were controlled but limited to pedestrian and often repetitive actions, especially with The Shovel in the early section of the piece. They were juxtaposed against Danai's more complex torso based movements that disseminate through her limbs in an animalistic fashion. Taking on these attributes

²³ This occurs at 00:05:30:00.

²⁴ This occurs at 00:07:00:00.

could be seen as my becoming more feminine since Danai retained her half of the instrument. I succumbed to intimacy and tactility rather than control and she ceased her teasing as a form of control. We had been successful in creating a democratic discourse with the instrument using strong gender assignments.

The Shovel was originally called the Shovel Controller although I subsequently became aware of the implications of the name, and its associated gender, in the field of Music Technology. Women are subject to indirect discrimination within male dominated environments at academic institutions and certain genres in the commercial music sector that derives from the gender assignment of certain musical instruments at an early age which is noted by Born and Devine in their paper *Music Technology, Gender, and Class: Digitization, Educational and Social Change in Britain* "Instruments can thus serve as key avenues through which larger musical formations such as genres are constructed as gendered communities of practice." (2015). To suggest the control of a woman with my gendered shovel was not my intention, rather I wanted the obvious, almost polarised, gender associations and roles of the Bra and Shovel to be explored and expanded upon in the performance. After the instrument had been built I had informal conversations with women who experience the gender imbalance in music, for example not being recognised as studio engineers (Rodgers, 2010) and Bjork not having her production work credited (Hopper, 2015). The women I spoke to wished to remain anonymous rather than risk their careers by describing themselves as feminists. In these conversations, the consensus was that the Speaker Bra on its own presented sexualisation and fetishism of women, reminiscent of mythological figures and fictitious inventors who built their own obedient woman. Such examples were

Pygmalion who fell in love with his sculpture of a woman which was then was granted life by Aphrodite, Hephaestus who created a robotic woman and Auguste Villiers de l'Isle-Adam's (1888) fictional account of a robotic woman being deconstructed, and thus dehumanized, in *Future Eve*. I recognised that the ability of the Speaker Bra to mute The Shovel, and the inability of The Shovel to make sound independently, addressed issues of the balance of gender-based power to a certain extent. This was then brought closer to resolution when The Shovel was discarded, meaning the perceptions of the instrument devaluing women were challenged but could only be resolved in the context of the piece. Changing the name was therefore an appropriate adjustment that recognised that the instrument was both an independent sculpture and contextually a part of a greater project.

4.2 George Williams

I deliberately took the gender issues explored in *Cold Papaya* into *Pensile Decumbent* with an approach that would balance the strong feminine gender of the Speaker Bra by augmenting the male form, so I placed the speaker over my crotch. I disregarded the idea of a secondary controlling or affecting device, like the Shovel. While building the instrument, I tried not to envisage how a performance might be realised; instead I focussed on the objects that made up the instrument and their potential for human interaction, introducing and integrating elements of myself into their sculptural presence, including gender. My posture, which was encouraged by the instrument, was formal and warrior-like with my legs apart, one arm often outstretched for balance and guidance and the other holding the precarious fastening of the instrument

in place. The hip thrusting movement developed through trial and error in the construction process as my initial intention to swing my leg back and forth proved mechanically inadequate to turn the motor that generated a signal to modulate the tone coming out of the speaker.

During our improvisation, George's use of the pallet as an instrument was aggressive, we made regular eye contact and our previously mentioned student-teacher relationship added the very strong dynamic of male peer structure. However, unlike *Cold Papaya*, we did not make intimate physical contact or share our instruments. As performers we kept a physical distance between us to make a point that we had avoided the debate of our own gender dynamics and sexuality; this avoidance was the manifestation of the expectation that our relationship would have had to become more personal than tutor-student friendship in order to have been a traditional collaboration; classic in the sense that it would have occupied an emotional place not unlike that of lovers or an intimate friendship. This was a boundary into an intimate place that we did not manage to cross, so the avoidance became a dynamic against the pre-existing student-teacher relationship that resulted in our overtly masculine gendered performance.

As well as comparing our interactions and relationship with one another, I was interested in comparing the masculine improvised performance that we had created in *Pensile Decumbent* to the gender balanced, arguably more feminine, discourse within *Cold Papaya*, since the crotch speaker on the *Pensile Decumbent* was my reaction to the *Speaker Bra*. There were clear differences between my relationships with George

and Danai since Danai and I devised together and George and I used disciplined improvisation. George and I turned elements of this improvisation, which had begun with our student-teacher relationship in Stockholm, into a masculine bonding dynamic in the cooling tower. Conversely Danai and I had a longer-term connection, so our gender dynamic had time to develop into the intimate relationship where we were allowed each other into our mental personal spaces for the purpose of creative sparring. The masculine nature of *Pensile Decumbent* and the physical distance George and I keep apart is similar to the distance Danai and I kept from each other in *sib Conduit* and if I had continued to work with George then further barriers could have been broken down and physical contact, like that demonstrated in *Cold Papaya* is likely to have developed. This intimacy, once developed, is a device for engaging the audience and presenting them with an opportunity to become emotionally involved in the relationships between the performers.

4.3 Katie Hall

The gender dynamics between Katie and myself were negligible and I found it difficult to discern any tension that was physical or mental, either positive or negative, therefore the performance of *Uncertain Construction* lacked spirit. To a certain extent the composition, like my works with Danai and George, described my inter-personal and collaborative relationship with Katie. The piece was lacking in energy, was emotionally and physically detached and uncertain in places, a feeling that contributed to the title of the work. It lost momentum when we knelt either side of the upturned

Beast to play the resonating piezo discs with our hands²⁵. We had no eye contact and our movements were cold and methodical. We could have easily been in separate rooms and the entropic result would have been the same, whereas when Danai and I finished *Frozen Venus* there was a very clear and strong physical dialogue between us. Both moments were similar in their premise in that we were opposing one another intending to create interaction, balance and dialogue through the instrument, yet very different because in *Uncertain Construction* there was not enough energy and presence between Katie and me for these to be explored. I attribute this to a number of compounding events, one being the different personal styles of Danai and Katie; the lack of an audience to draw into the performance and thus into the relationship between me and Katie, and our lack of social interaction outside the rehearsal studio. Had it existed, this would have been the engine and foundation for our personal dynamic inside the studio. I believe this lack of interaction led to the absence of hierarchy in our relationship, which could have contributed to a social dynamic between us that would extend into the performance. I had also been looking for someone to replace Danai and continue the method that had produced three successful works, but it was clear that collaborating with Katie's detached, precise and methodical style of working would produce a piece that was distinctly different from, and less intimate than, my work with Danai.

²⁵ This occurs at 00:06:20:00.

Conclusions

In my collaboration with Katie Hall, our studio environment was gender-neutral and our gender dynamics were almost non-existent. Without an audience, it was almost as if we had created entropic conditions for the performance. Our genders were there, but the dynamic was not. In comparison, when I performed solo with The Beast in *New Track Of Unknown Terra I & II*, the environment (presuming that the built environment was towards the masculine end of the masculine-feminine spectrum) and I had no other gender with which to be dynamic, so masculinity prevailed, a condition which supported Berg's and Lie's opinion "... holding that gender is inscribed into technologies does not mean that they are not open to change" (Berg and Lie, 1995). In other words, The Beast's masculinity was entropic in *Uncertain Construction* and dynamic in *New Track Of Unknown Terra II*. The gender balance of The Beast shifted when used in different collaborations and environments. Although there was no audience for the live performance of *New Track Of Unknown Terra II*, the aesthetic and cultural strength of the built environment compensated for this and became a substitute audience with which I could interact. Other factors that contributed to the lack of dynamics with Katie were that, since our collaboration was relatively short, she and I had little time for reflection and social interaction between our rehearsals; and the black box space in *Uncertain Construction* had few characteristics that enhanced the tactile and resonating qualities of The Beast.

George Williams and I, on the other hand, engaged socially outside of prescribed performance and rehearsal times and we had a secondary relationship as student and teacher. However we had no opposing gender dynamics. This led me to ask where our

energy came from. It was most likely our male bonding experience and tensions that resulted in being unsure as to how our relationship should develop in the context of our matching gender and peer status. We perceived the pressure of certain societal norms and social constructs upon us that prescribed how we should act as masculine men. That perception created a tension that we channelled into our work.

Danai Pappa and I were able to be creative with our strong gender dynamics and our plentiful social interactions meant that we had a lot of time for reflection and to develop our close creative attachment. Our intimacy directly supported my expert/inexpert evolution as an artist. Close regular exposure to Danai and her dance community through rehearsals and social engagements respectively meant I became more aware and able to control my movement inside and outside my kinesphere, especially relative to Danai's position in space. I learned how to open up spaces, manipulate negative space and bond socially as a collaborator, essentially to take the 'green room' with us wherever we went. The latter being a skill I enjoyed advocating and engaging in when the opportunity arose with the Dirty Electronics Ensemble in Stockholm. I did not become 'expert' in the use of these new tools, but my knowledge and my ability to expand my practice grew through working in a different discipline whose abstract compositional devices had strong parallels with music. Danai and I were so close that by the time we came to compose our third work, *Cold Papaya*, our practice was fast and fluid. It became impossible to separate Danai's creative input from mine, suggesting that the more difficult it was to define our individual roles through our collaboration, the more successful it had been.

With Julie Kuzminska, our gender dynamics and social interaction were strong but we did not work together in the area of live performance. There was an impetus for me to impress her on a personal level and therefore collaborations took place through social and theoretical dialogue in the areas of pre-production rather than in any kind of practice, making Julie's role that of a 'sounding board' for ideas in the area of documentary video art. She believed that my work should be more abstract, similar to her work with the Archaos circus troupe (Kuzminska, 1989), however I wanted to create a balance where elements such as the demonstration of the instruments and their operation were clear and distinct.

When my collaborations with Danai and Katie ended, the practice of creative video editing and my collaboration with the cooling tower took over the emotional space that was once occupied by our creative interactions and relationship. It would be inaccurate to say that they replaced them, as my relationship with the cooling tower was not the same. When video editing I worked on my own, assembling pre-recorded documents into a composition; working with the cooling tower I was using the structure as a muse, an instrument and a canvas. This could not replace the interactions of another human being. Editing in solitude in a studio and creating site specific performance in a cooling tower represented different activities that used different creative processes, although neither created the immediacy of working with another person. I found I was able to use the time and effort I spent in post-production to produce the additional creative work that took the place of the major creative input of my collaborators. However these additional layers of work that I incorporated on to the pieces resulted in creative solo works of a different kind because of the absence of

my collaborators' alternative perspective and often-unusual suggestions. This meant the resulting *New Track Of Unknown Terra* compositions could be held up against all my other works as non-collaborative and used as a bar to judge the input and influence of collaborators. This applied less to *Pensile Decumbent* because George's improvised ideas placed his unique personality on the work during the performance, although I still created my own imprint while editing in the studio in his absence. After the performance in the cooling tower his role was over and it was up to me to mould our improvisation into a piece of video art that had form and substance. The creation of this work was a separate project that came after the performance using different thought processes and methods that are closer to those of sound-based compositions in a recording studio. If I were to choose between the cooling tower and video editing, the former was a better replacement for Danai as it was totemic and was engineered, albeit in a utilitarian manner, with masculine gender. Relevant totemic objects were to all intents and purposes nonexistent in the editing suite I used, by this I mean objects embodying an idea or set of ideas that could be utilised as a guide for creativity. This resulted in the studio becoming my isolation chamber for instigating inspiration, allowing me to focus on the non-corporeal final stage assemblage of material I had gathered at the cooling tower.

Various forms of hierarchy were present to differing extents during my collaborations and we used them to creative effect in our works. There was a structural relationship between the two Electronic Dumbbells, and between the Speaker Bra and The Shovel, the latter instruments having a moderately stronger gender based structural hierarchy than the former. These worked as a framework onto which Danai and I superimposed

our existing gender dynamic in *sib Conduit* and *Cold Papaya*. In *Frozen Venus*, however, there was no hierarchy between the six identical Plungerphones so the gender balance element of our dynamic prevailed during the composing of the piece and was clearly apparent in the final work.

In *Pensile Decumbent*, it was the peer relationship between George and me, originating from our student/lecturer relationship, which brought strength to the piece. This had little to do with our instruments; although the *Pensile Decumbent* and the *Pallet* were both strong in character they were different from one another in conceptual terms, which created juxtaposition rather than a hierarchy. The least hierarchical of the collaborations was with Katie, regarding both gender dynamics and the instruments in the composition.

In all my collaborations commensality was important in enabling our creative process. In *Unknown Construction* the lack of gender dynamics and commensality resulted in a work that felt flat. However in *sib Conduit*, *Frozen Venus*, *Cold Papaya* and *Pensile Decumbent*, all the ingredients of gender dynamics, commensality, effort in instrument making and in collaboration were present. Video art filled the gap left by gender dynamics in *New Track of Unknown Terra I & II*. It was not essential that the dynamics were gender based, any juxtaposition could provide a creative energy, but in this portfolio we worked with gender dynamics since they were the default construct in which I placed myself after meeting Danai. Any other collaboration after her became a comparison. Danai, George and I used the gender dynamics of flirtation and peer structure, discussed by Berne (1964), to fuel our creativity.

In all of my works, effort was represented as ‘real and metaphorical, loosely repetitive, laborious movements and phrases’. For example, laborious actions were present in the *Grid Game* section near the beginning of *Frozen Venus*²⁶ and later ‘actual’ effort in the *Breakout, Chase* then *Filling the Void* sections²⁷. Making the effort ‘actual’ was a device to create authenticity although it did also serve a secondary purpose in representing a measure of traditional masculinity, assuming that representations of labour and effort sat towards the masculine end of the masculine-feminine spectrum. The actual effort was deliberately balanced with metaphors, such as the Sisyphus-like dragging in *New Track of Unknown Terra I & II*, to encourage a route for the audience into the performance through emotional participation. This was part of my effort to make repetition and labour less mechanical and more human. These, and metaphorical representations of effort and labour used in *New Track of Unknown Terra I & II* and *Pensile Decumbent*, were influenced, to varying extents, by the instrument designs, which in turn were creative artefacts of the manual labour prevalent in the steel industries of Scunthorpe where I grew up.

The physical sculptural instruments were important in instigating the performance as they provided something to react against or work with. This was clear, for example, in *Cold Papaya* where, as stand-alone sculptures, *The Speaker Bra* and *Shovel* made a clear provocative statement regarding gender roles that were then explored in the performance. These instruments changed their contextual meaning when they ceased being sculptures in their own right and became tools for gender enquiry in the

²⁶ This occurs at 00:01:50:00.

²⁷ These start at 00:04:15:00.

performance. This challenged the notion of instrument, and I even had difficulty ascertaining whether The Speaker Bra and Shovel were two separate sculptural instruments or a single entity. They certainly appeared to represent a singular conduit, an idea I was trying to express in my earlier work *sib Conduit*. I also became aware, after *sib Conduit*, that the sound was an artefact of the instruments as well as the product of movement. These undercurrents played a part in my eventual realisation, and subsequent articulation in this thesis, that it was interaction, not gesture, which was important to my research practice.

My appropriations removed the original function of some of their components (The Shovel blade, the lampshades and the plungers) in an act of Duchampian rebellion. The resulting sculptural instruments were transient, but their role was important as an inspirational tool and their physical presence remained after the performance as a trace of a larger creative process. In this way they became footprints of tools that were a means to an end, making their creation an artwork and process in its own right. One important insight was that the instrument that was most difficult to work with, the Plungerphone, was the one that was made from a single pre-designed object whereas all the others had combinations of many found elements in their construction. It underwent the least amount of subversion, or was not subverted enough as a result of its appropriation, therefore the Plungerphone, provided the least inspiration. It is likely the introduction of varying levels and combinations of re-purposing and multiple object construction in the other instruments will have inspired our compositional process, each instrument being a stimulus in its own right.

I initially presumed that effort in travelling long distances to rehearsals in London carrying the instruments for *sib Conduit*, *Frozen Venus* and *Cold Papaya* would correlate with energy in the works or performances but it did not. However these long commutes did contribute to longer gaps between rehearsals and performances, which afforded time away from our immediate working environment that we used for reflection and discussion. These often took place over email and video messaging and were also social conversations where we became familiar with one another as friends in addition to socialising before and after rehearsals. For example, I found that Danai used to be a part of the gothic music subculture in Thessaloniki in her youth and had a love for Woody Allen films. This is the kind of information that Katie and I did not share in our short two-month collaboration because our relationship did not have the time to develop any semblance of intimacy that could become manifest in our works. This is true of all my collaborations that contained themes of separateness, often manifest as physical distances between performers, for example, in *sib Conduit*, *Uncertain Construction and Pensile Decumbent*; however, only through long-term collaboration with Danai did intimacy develop and become present in *Cold Papaya*. This comparison is a useful indicator of how long-term slow and steady working with plenty of reflection contributes positively to creative output.

It is important for my creative mind to use serendipity by being constantly aware of my personal universe. Not knowing where my creative ideas will take me is more important than knowing; knowing where I am going could become a hindrance as it does not encourage me, as a creative adventurer, to wander from the beaten track. While navigating my personal universe, I collect sketches, talismans, memories and

collaborators of any form for inspiration, and develop an emotional attachment to them that can be turned into creative energy. I am aware that my audience is also my collaborator and I communicate with them using the sculptural instruments that result from this creative energy. To the outsider these might seem messy methods, however they give space and flexibility for eureka moments to be sparked into life by the dynamics of the creative mind that explores them through tactility, cultural entanglements and aesthetic value. It also creates a research method that is ultimately flexible enough to accommodate broad changes in research direction or to incorporate new ideas into the methodology when they come to the fore from unexpected quarters.

There are many topics that are touched on in this thesis that have possibilities for further research. There is much potential for developmental psychology to be used in investigations regarding how the maturation of the artist is related to their artistic output. This can be linked to gender dynamics and the roots of sexism as it can be argued that both are ecological and benefit from auto-ethnographic or biographical investigation. Totemism is also related to ecological actors and closely linked to ritual and repetition in performance. Ritual is also linked to commensality when applied to collaborative artist communities and residencies, not to mention skip diving for materials that are used in the construction of a sculpture for performance that could ultimately be defined as prosthesis. This is key to the further re-defining of the instrument as a creative conduit and the sound as an artefact.

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